GOD SPEEDE THE PLOVGH.

Genes. 26.12.

Serens Iitzchak in terra illa, adeptus est in eodem anno centuplas mensuras.

LONDON
Printed by Iohn Harison, dwelling in Pater noster row, at the signe of the Gray-hound, and are there to be solde.
1601.

SPEEDE THE PLOVGH.

Printed by Iohn Hamon, dwelling in Paper-nolane
row, at the ſigne of the Gun-head, and
are there to be ſolde.
1601.

GOD SPEEDE
THE PLOVGH.

I Had preceded certaine affirmed errours, that of late came to my hands, by a priuate confutation of a generall causlesse applause, had not the vaine shew of maintaining the poore, beene the noted colour for their maintenance: I therefore then spared my conceit thereof, till now prouoked by this spirit that I euer feared would giue the first prouocation. I taxe him not, but wish that his Bookes were not so vniuersally branded, that so his affectation of odde nouelties, might be in part obscured.

It much contenteth me, that this noueltie hath his passage, though I endeuour to shew the vanitie of it being thus farre passed: my hopes are, that it will set an edge to good Husbandrie, which with vs for many yeares hath beene generally neglected.

The originall of the Spade, I attribute to Caine Adams *eldest Sonne, with inference vpon holy writ, and* Iosephus *more particularly. Excellent spirits succeeding him, labored after some easier and more profitable course, from whome in course of time proceeded the Plough. The*

firſt inuentors whereof in euerie ſeuerall kingdome, being thought worthie to bee deified, reade Virgil *and* Plinie *for* Ceres: Diodorus *for* Iſis *and* Dionyſius *the ſecond, who is reported firſt to haue yoked Oxen to the Plough. But now the reuiuers of the Spade, a thing in vſe onely in the infancie of the world, muſt be glorified. If our purpoſe bee to reduce the old world, before by degrees things came to perfection, then in my iudgement it were beſt beginning at the woodden dagger. But if we deſire to know how of late it came in vſe, at home let vs conferre with the Dutchmen about Sandwitch, and ſome Gardeners about London: if abroad, trauell Germanie, where you ſhall find many preſidents thereof; ſuruay the Prouinces, peruſe the Eaſterne Countries, and they will manifeſt, that it hath beene long in vſe. The truth is, theſe laſt two yeares haue drawne it amongſt vs into ſome more generall vſe. For they being drie and extraordinarie temperate, the weedes increaſed not as in former yeares: the ſtalke was ſhort, the eare not ſo long nor ſo heauie: it ſtoode therefore in theſe yeares with all aduantage, and ſo profitable onely in their like. In wet yeares it will lodge, with all the diſaduantages ſubſequent, and therefore vnprofitable in them. I might prophecie, that as the two precedent yeares reuiued it; ſo the two ſuccedent yeares will leaue no memorie of it: and yet this preſent yeare promiſeth good ſucceſſe to it, which iuſtly might diſ-harten my oppoſition to this nouelty, were not my ends in ſeeming to oppoſe, deſires to perfect to the generall good.*

The Plough, which now is generally in vſe, can compaſſe with the aide of two or one, as the Country requires, an Acre or two in a day. Three-

ſcore

ſcore ordinarie Countrie labourers, can hardly digge an Acre at two Spades, whereof I haue made triall. If a Husbandman appoint thirtie Acres for Wheate, which is no great proportion, it will require threeſcore men to digge it, and twentie women or children to ſet it. If one imploy foureſcore for ſeuen weekes ſpace, which will be the leaſt time, accompting chaunge of weathers, what ſhall his neighbour Farmors doe? depend vpon the fauour of the labourers for hauing Corne or no Corne? But if it be well conſidered, it will appeare, that if a Pariſh haue three thouſand Acres of arable, the labourers inhabitants cannot compaſſe 100. I dare affirme not fiftie Acres: what then can bee the profit to digge and ſet ſome fiftie Acres in a Pariſh? is it poſsible to equall the ſowing of three thouſand, or three hundred Acres? If then it cannot be vſed with any generall good to the Commonwealth, it is not to be preferred before the Plough, nor to be bruted as a matter of that conſequent.

The ground muſt be digged at a Spade, a Spade & a halfe or two Spades. If moſt profitable, then two Spades. If two Spades, then will the ground, being made looſe ſo deepe as it can afford nutriment to the rootes of the Wheate at any time, yeeld at one time his full vigor, ſo as I cannot vnderſtand, but that the ſecond crop will bee poore, and the third none at all. For foyle to ſupplie, it cannot be but to ſmall parcels, and that to no purpoſe, except there be threeſcore loade vpon an Acre, and that wel turned in with the old earth. For a Spade and a halfe, which is the fitteſt depth, becauſe Spades are made to make it but one worke, it admitteth ſmall or no

difference. For a ſpade depth, I confidently ſet down a ſubſequent vſe of the Plough, of better profit then that. When the ſecond crop is taken after the Spade, at two, or one and a halfe depth, it being double weeded euerie crop, ſo as neither graſſe groweth vpon the ſuperficies, nor life remaineth within the earth, what then ſhall be done with it? It will remaine like a Gardiners ground, out of the which the Gardiner by often digging hath taken the hart: which I deſire to be examined of them, to know what gifts they haue, to extract the vertue out of the earth, and after a third croppe of that ground, that at the firſt was couered with dung, what profit they haue left to the owner? On the contrarie, the Plough affordeth three crops, and then yeeldeth vpon the reſt ſome profit for Cattle, & ſo euerie yeare continueth his labour and increaſe, whereas the other cannot to any purpoſe yeeld aboue two crops in foure yeares, except extraordinarily helpt. So it leaueth the Commonwealth deſtitute of the continual profit. And it is not the glut of plentie, but the ordinarie increaſe that maintaineth the Commonwealth.

In ſome grounds digging is of ſmall or no vſe: as in ſtiffe Clay a verie generall earth: Light Sand: Grauelly grounds: or ſuch grounds, as at halfe a Spade depth affordeth a barren earth. The Clay will not be broken: if it could, it would yeeld no ſuch encreaſe. The light Sand, will afford his full profit, as well after the Plough, as any labour whatſoeuer. The ſtonie ground will require infinite labour

hour, and yeeld no better profit. The ground that hath a barren earth at halfe a Spade, can onely bee vſed by the Plough. So theſe containing the greateſt quantities of our arable grounds in England, and theſe not in that kind to bee vſed with profit anſwerable to the charge: I affirme, that the Plough is to be preferred.

The ground, wherein the Spade is imployed, muſt be digged, ſet, weeded twiſe, vpheld, being ſet diuided in beds if ſo profitable, and it muſt be kept a Moneth before Harueſt. The charge of the digging of an Acre will amount to three pound, more if it come to a generall vſe: The ſetting, thirteene ſhillings and foure pence: The weeding twiſe, the firſt time, thirteene ſhillings and foure pence: The ſecond, ſixe ſhillings and eight pence. The vpholding it with rayles on the out ſides, as good huſwiues doe their Onions, or as Gardiners doe their Peaſe, will bee a charge in ſome Countries at the leaſt of one pound ſixe ſhillings and eight pence the Acre. It muſt bee kept a Moneth, which for a youth at foure ſhillings the weeke meate & drinke, commeth to ſixteene ſhillings, I ſay it muſt be kept, becauſe no grounds are ſo rich to afford it ſo plentifully as thoſe that adioyne to dwelling houſen, nor none ſo conuenient to be helpt as them, then is it of neceſſitie that the Birds will lie vpon it with great preiudice, therefore it muſt bee kept. The totall charge, is at the leaſt ſixe pound thirteene ſhillings and foure pence vpon an Acre, beſides the rent of the grounds. Vnderſtanding this, I demaund where

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the Husbandmen bee, that now liuing vpon so excessiue racked rents, can disburse the charge of many Acres. Besides, there is a necessitie in this worke, where so many must bee employed, of a Bailey of sufficiencie, whose charge is to be thought vpon by the way.

The charge of the Spade you haue heard, and euerie man knoweth the charge of the Plough. For the inconueniences of the Spade, it is more subiect to weedes. For wee see the richer the ground, the more weedie; and the more pliable and gentle the mould is, the weedes more abound, as it is manifest in Gardens, so as it cannot bee otherwise, but that in a wet season the weeds will ouergrow the Corne, and in many yeares not possible to bee helpt. For it being in eare, the weeders will doe more hurt then good: and it is the wet after it commeth in eare, that also causeth the weede that choketh the Corne: this euerie experienced man knoweth. Yet to those that haue set and must weede, I perswade the end of March, and the beginning of Aprill for their first time, and at that first time, I perswade the doing of it thoroughly. It is more subiect to bee blasted and smutten, for that by the freenesse of the ground, it will be sooner in eare: yea, so soone as at the beginning of May it will shew it selfe, being then subiect to the frosts & dewes of that season, the losse whereof witnesse the Corne in the Marshes. By birdes I know it will receiue great preiudice, which will be so sensible, as with the time, wee will in our rich grounds by our houses, returne to sowing

rootes.

roottes. As for the ledging, I cannot but profesſe that onely that will diſcourage all affecters of this nouelty, for many ſtalkes will come out of one roote, euerie ſtalke will be ſlender and long, euerie eare will bee heauier and longer then ordinarie, or elſe, no poſſibilitie of ſuch increaſe as is talked for, and it muſt be exceeding rancke. If a ſmaller ſtalke, longer, heauier eared, and thicker ſet then ordinarie, how is it poſſible to be vphelde? Experience will teach, that the leaſt wet in Simmer, will cauſe a diſlike of the Spade and reuocation of the Plough, who commeth not ſo ſoone into eare, who is ſtronger ſtalked, not ſo long, heauie, nor ſo thicke ſet. Alſo, I know the place within twentie miles of London, where this laſt yeare for all the temper of it, that ſet Wheate, did ledge and come to ſmall or no profit. The Corne that is ſet, is more ſubiect to the mould, Mouſe and wormes for the ground being lighter, they haue the freer paſſage in the earth, and it muſt maintaine a Mould-catcher, if vſed in any quantitie. The difference in my vnderſtanding, betweene ſetting and ſowing is: That in ſowing, the Birds wil pick vp ſome of the Cornes at ſeede time, and the graſſe wil preiudice the Corne in comming vp. The Birds (they ſay) taketh away much of the Corne ſowne, but none of that ſet, I admit that, but what part of the Corne is it? is it any but the looſe Corne? if ſowne timely in the yeare, if late, I confeſſe the Crowes will ſcrape ſome ſmall quantitie out of the ground: but if it be ſowne vnder Furrow, then is it euerie way as ſafe as that which is ſet, and where it is not, the proportion of ſowing is

three bushels vpon an Acre in good ground, and for setting halfe a bushell or a pecke, as some would haue it. That being so, it cannot bee but vpon euerie Acre, where three bushels are sowne, that there will a bushell remaine to come to perfection, so as the Birds cannot be of that preiudice, as to make it seeme nothing in comparison of the Spade. But if sowne before Michaelmas vnder furrow, then is it as safe from Birdes as that which is set. For the grasse a fallow killeth it, & leaueth it vpon as good terms. Also, it may be raked off at much lesse charge then buried by digging. I must confesse, that there is a great fault committed in England, for sparing a little charge in weeding, especially in good grounds. Nor there are that take vp the defence, that so they want the after Pasture, the leauing of the Fogge on the ground there to rot and be as new compost. Also, the grasse after his season of cutting, sendeth downe into the earth againe that nutriment which it receiued, which may be obserued in the omitting to cut Meadowes in their due time. But these are answered: for in being not weeded, if the yeare proue wet, the Come is at losse: if drie, the increase will be double, especially in rich grounds, as by experience you shall find: vse it, and perswade the vse of it, how slender so euer the crop seeme to be, and of what nature so euer the ground bee. I affirme therefore, that an Acre of ground turned vp before Christmas, so as it may lie in a Winter fallow, then in May compost to the equall goodnesse of the ground, fet and Ploughed crosse, & laied in a Summer fallow, after turned, and then Ploughed and

sowde vnder furrow three weekes before Michaelmas, will yeeld an equall crop with the Spade, and exceede it, in that it will afford three crops one after another, and the other but one to any purpose. I will not disgrace a proofe I meane to make triall of for Barley. And that is to giue to a peece of ground foure earthes, euerie one deeper then other, hauing a Plough for the purpose. After two of which, to breake and leuell the ground with a great Oxe harrow, which I perswade to al good husbands for Summer graine. After the other two, to take away the grasse that the light Harrow leaueth till it be as leuell as a Garden, and then set it, which being discreetly vsed, will not exceede aboue ten shillings more charge vpon an Acre, by the ouerplus of the graine that is sowne: and so I doubt not, but to haue as great a quantitie (alwaies prouided, that I take care to weede it) as hee that diggeth and setteth it. I conceit well, that when a peece of ground is cleane out of heart by Ploughing, and the earth vnder the Plough, continueth as good as that aboue, that then this housbrie be vsed as being there of best vse. Yet a Plough may so be made and handled, as it may goe deeper by halfe a foote then ordinarie, yea a foote, proportioning the strength of the Teame and Plough together. I haue perswaded some verie eager to set Wheate, that they should doe it in the beginning of March next if the ground bee rich as it ought to bee; thereby to preuent the smut, the weede, the length of the straw, and lodging: and I hope of their hauing a good increase for the best crop that euer I saw, was a Summer crop of wheate

in a rich ground. Besides, I except not against beds of Corne vpheld by those that loue nouelties, for I know that without some strengthning it will ledge & come to nothing. And I aduise all those that this yeare hath beene at great charges in digging and setting, that in the latter end of March in a drie time, they get wood, and either rayle their grounds thorow at sixe foote distaunce, as Onions are for seede, or set stickes cleane thorough the ground for the Corne to rest vpon, as Pease haue: Or else at euerie foure foote in breadth, set rowes of stickes which will be sufficient. But all things considered, I resolue that the old good Husbandry of the Plough is most profitable for the fields, and the later Huswifrie of rootes and necessarie prouision for the house, most profitable for the Gardens.

It may be, that some will obiect that hitherto I haue erred from the state of the question, prouing onely the Plough of better vse then the Spade, for the generall or particular good, whereas I ought to haue proued also setting of Corne to be inferiour to sowing. For that it is setting, which is specially to be regarded in this new art & not digging. I answere, that if digging were not as the soule of this question, and setting but as the body, I would neuer haue set penne to paper. But in all reasonable vnderstanding, it is the loosning of the ground, whereby the earth may yeeld nutriment to the rootes, and the rootes may take strength so easily in the earth that yeeldeth so great increase. As for setting, it is nothing but forme at such a distance, and such a

depth: The diſtance they ſay of foure or fiue inches: the depth three or foure inches. The Gardener, a certain time after his Parſnips & Carrats are come vp, if they appeare to thicke, taketh out the ſmalleſt and ſetteth againe: ſo may alſo the Corne be vſed, where it is too thicke, by thoſe that haue nothing to doe. But if the thinneſſe of the Corne cauſe the profit, it may be ſowne as thinne as ſet, onely not ſo iuſt at a diſtance, yet as profitable. For the depth, I know no difference, betweene that and ſowing vnder furrow: it reſteth onely in the diſtance. And that a Buſhell orderly ſowne vnder furrow vpon an Acre that is digged, will yeeld as great profit as halfe a buſhell ſet, I challenge any man to the practiſe. Beſides, I vouch him authoritie for the increaſe of ſowing, ſuch as neither his reading nor practiſe ſhall euer ſhew me the like for ſetting. I haue no Hebrew for the Text; but I haue all tranſlations agreeing. *Geneſ.* 26. 12. *Iſaacke* ſowed in Gerar of the Philiſtins, and found in the ſame yeare an hundred fold. And till this place bee anſwered, I iuſtifie the true ſtate of the queſtion to bee betweene digging and Ploughing, concluding euer, that at much leſſe charge to as great profit, the Plough may bee vſed by good husbands.

That it will yeeld thirtie, or twentie quarters vpon an Acre.

I See no probabilitie for it true, it would farre exceede any increase of any roote, or whatsoeuer sown or set by the Gardeners, and haue yeelded the profit with a great deale lesse charge and trouble, but they haue found the contrarie. Besides, an Acre timely sowne after foure earthes vnder furrow, in a verie fertil ground hath not exceeded sixe quarters, though the stalke hath been as thicke on the ground as any can bee that is set, onely presuppose the eare not so long. But I cannot bee perswaded, that the eare set will be twise as long, as the eare sowne: if it would, it cannot then exceede twelue quarters. But is it not probable, that much of the Corne sowne vnder furrow lieth as deepe, as wel rooted, the earth as lodse, and commeth vp in as many sprouts, and so beareth as many stalkes and heads, as the other? It doth certainely, & I can shew it by my owne practise, and therefore pardon my beliefe. The onely difference is, that no paines nor care will be vnited for digging, setting, soyling, weeding, and preseruing a peece of ground adioyning to a dwelling house, whereas the like cannot be of many Acres in the fieldes.

That Corne that is sowne after or about Allhollowtide, cannot send forth so many stalkes by reason of the clods.

BY reason of the weather I confesse in generall, not in euerie particular. But in comparing their worthes,

worthes, let vs ſort them for times: for otherwiſe the diſpute is betwixt ill husbandrie with the Plough in ſowing, and good husbandrie with the Spade in ſetting. The later winter Corne is ſowne, generally the worſe it proſpereth, this euerie Husbandman knoweth. Yet I know grounds in Barkſhire and other places, that will proſper much better, beeing ſowne in dust after Alhollowtide then before. But that fallow grounds with reaſonable ſtore of clods, ſhould be preiudiced by the clods, I denie, for they yeeld a double benefit to the Corne. They keepe it warme, defending it from the blaſtes and froſtes of Winter: they breake generally in the beſt ſeaſon to comfort it; which is towards the Spring, and ſo yeeld a new earth to the Corne. But if the clods offend any man, I beſeech him take me for his preſident. I drew an Oxe Harrow ouer my laſt Wheate fallow, before the laſt earth, and thereby I brake the clods all to duſt, but I repented me, and ſo may he do that followes me.

Blacke and rich mould out of Vaults and Cellers, laid vpon Gardens for want of the Sunne, will make them barren.

DOe we not ſee and know that the Sunne is preiudiciall to the ſuperficies of the earth in extracting the vertue out of it; and therefore wee lay not in the heate of Summer our ſoyle vppon our grounds, leaſt the radicall moiſture ſhould be extracted? Doth not a new earth turned vp, if of equal goodneſſe with the firſt cruſt, yeeld a better increaſe then the firſt? Why are grubbed grounds better for

Corne

Come then other, where the Sunne hath not come for many yeeres. Is not the bottomes of dung heapes most profitable, because the Sunne hath extracted the vertue from the vpper parts? What benefit of the Sunne hath the earth of pits, ditches and ponds, which lie couered with water? What hath the Marle and Chalke, digged out of deepe pits to manure grounds, *Cum multis aliis, &c.* This I had thought to haue passed ouer as being impertinent to our *species*, but that it crosseth a true receiued obseruation, verie profitable in my vnderstanding. And that is, that there is no Mannor in England, either subsisting wholly of barren grounds, or in part: but hath a Marle, as they terme it: that is a fat earth, as I terme it. (Bee it of what kind or colour so euer) Chalke or other stone, turfe, or such like, either to be burned or vnburned, that will helpe the grounds as much or rather more then dung, and this to bee digged out of his proper ground vpon triall at a fadam, two, three, or foure. Also, there is much good to be done by obseruing the difference of earthes, in making the earth of one field supplie the defect of another, and so interchangably they may be tempered to an excellent benefit.

If any except against my idle houres, and make opposition in generall or particular, I professe to presse the arguments no further, as being no part of my profession. But therein vpon equall termes, I will not be wanting to answere whilest I liue.

FINIS.